13. The process for making activated carbon of claim 1, wherein a ratio of the activating agent to the hydrochar in the hydrochar-activating agent mixture is between about 2:1 and about 10:1.

14. The process for making activated carbon of claim 1, wherein the chemical activation process is performed at a processing temperature of between about 350 °C and about 650 °C for a period of between about 0.5 hours (h) and about 3 h.

15. The process for making activated carbon of claim 13, wherein the chemical activation process is ramped to the processing temperature at a rate of between about 5 degrees Celsius per minute (°C/min) and about 15 °C/min.

16. The process for making activated carbon of claim 1, wherein the chemical activation process is performed in a presence of nitrogen gas at a flow rate of between about 20 millilitres per minute (ml/min) and about 100 ml/min.

17. An activated carbon having a mesopore surface area of between about 1300 square metres per gram ($m^2/g$) and about 2000 $m^2/g$, a mesopore volume of between about 1.9 cubic centimetres per gram ($cm^3/g$) and about 3.8 $cm^3/g$, and a mesoporosity of greater than 70 (%), wherein the activated carbon is obtained from a biomass.

18. The activated carbon of claim 17, wherein:

the mesopore surface area is about 1331 $m^2/g$, the mesopore volume is about 1.98 $cm^3/g$, and the mesoporosity is about 76 %;

the mesopore surface area is about 1780 $m^2/g$, the mesopore volume is about 3.5 $cm^3/g$, and the mesoporosity is about 100 %; or

the mesopore surface area is about 1815 $m^2/g$, the mesopore volume is about 2.8 $cm^3/g$, and the mesoporosity is about 98 %.

19. A process for making hydrochar, comprising:

providing a biomass;

mixing the biomass with an oxidizing agent to form a biomass-oxidizing agent mixture; and

subjecting the biomass-oxidizing agent mixture to a hydrothermal carbonization process to form a hydrochar having an increased oxygenated functional group content compared to that of the biomass.

20. The process for making hydrochar of claim 19, wherein the biomass comprises one or more of coconut shell, palm kernel shell, sawdust, wood, nut shell, husk, fruit pit, seed, peel, bagasse, peat, lignite and sub-bituminous coal.

21. The process for making hydrochar of claim 19, wherein the biomass is provided in the form of coarse granules having a particle diameter of between about 0.5 millimetres (mm) and about 5 mm.

22. The process for making hydrochar of claim 19, wherein the oxidizing agent comprises one or more of hydrogen peroxide, a carboxylic acid, a peroxy acid, a dibasic acid and a humic acid.

23. The process for making hydrochar of claim 19, wherein the biomass-oxidizing agent mixture comprises between about 60 percent by mass (wt%) and about 80 wt% of the biomass.

24. The process for making hydrochar of claim 19, wherein the hydrothermal carbonization process is performed at a temperature of between about 200 degrees Celsius (°C) and about 300 °C for a period of between about 20 minutes (min) and about 200 min.

25. The process for making hydrochar of claim 19, wherein the hydrochar has between about 30 percent (%) and about 70 % more oxygenated functional group content than the biomass.

26. The process for making hydrochar of claim 25, wherein the hydrochar has between about 40 % and about 60 % more oxygenated functional group content than the biomass.

27. The process for making hydrochar of claim 19, wherein the hydrochar has an oxygenated functional group content of between about 1.2 milliequivalent per gram (meq/g) and about 1.6 meq/g.

28. The process for making hydrochar of claim 27, wherein the oxygenated functional group content is about 1.29 meq/g, about 1.42 meq/g or about 1.58 meq/g.

29. The process for making hydrochar of claim 27, wherein the oxygenated functional group content comprises one or more of a carboxylic group, a lactonic group and a phenolic group.

30. A hydrochar having an increased oxygenated functional group content compared to that of a biomass from which the hydrochar is prepared, wherein the hydrochar has between about 30 percent (%) and about 70 % more oxygenated functional group content than the biomass.

31. The hydrochar of claim 30, wherein the hydrochar has between about 40 % and about 60 % more oxygenated functional group content than the biomass.

32. The hydrochar of claim 30, wherein the hydrochar has an oxygenated functional group content of between about 1.2 milliequivalent per gram (meq/g) and about 1.6 meq/g.

33. The hydrochar of claim 32, wherein the oxygenated functional group content is about 1.29 meq/g, about 1.42 meq/g or about 1.58 meq/g.

34. The hydrochar of claim 32, wherein the oxygenated functional group content comprises one or more of a carboxylic group, a lactonic group and a phenolic group.